DOCUMENT RESUME

ED 044 619 AC 008 780

AUTHOR Lynn, David R.; Nothom, John W.
TITLE Educational Activities within Business-Industry: Implications for Public Education.
INSTITUTION Hawaii Univ., Honolulu. Community Coll. System.
PUB DATE Jan 68
NOTE 62p.

EDRS PRICE EDRS Price MF-$0.50 HC-$3.20
DESCRIPTORS Business, Business Responsibility, *Cooperative Programs, Curriculum Development, *Industrial Training, Industry, Organization Size (Groups), Program Costs, *Public Schools, Questionnaires, *School Industry Relationship, Statistical Data, Surveys, *Vocational Education
IDENTIFIERS Hawaii

ABSTRACT

A study was made on the island of Oahu, Hawaii, of types and levels of training being conducted by business-industry; extent of business-industry inplant programs; costs of training programs; and opinions as to expectations for public education. Personal interviews were conducted in 23 large (more than 250 employees) organizations, and information was obtained from a larger sampling of "small employers" by mail questionnaire. The results of the two sample groups were generally consistent. The small employer group reported that expansion of vocational education at the high-school level as well as at the post-high-school level was significantly important as a means of helping business-industry with training. The larger employer placed greater emphasis on expansion at the post-high-school level and the part-time evening programs. It is apparent that manpower development must be a cooperative undertaking involving business-industry, public education, and related government agencies; however, an apparent gulf between business-industry and public education has not been bridged. Technological developments appear to occur in business-industry more rapidly than governmental agencies are able to develop needed programs. (PT)

EDO 44619

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

TRAINING ACTIVITIES WITHIN BUSINESS-INDUSTRY:

implications for public education in Hawaii

A Study Conducted by

Hawaii Vocational-Technical Education
Research Coordinating Unit

COMMUNITY COLLEGE SYSTEM, UNIVERSITY OF HAWAII
2327 Dole Street, Honolulu, Hawaii 96822

Project sponsored by State Commission on Manpower and Full Employment

AC 008780

The Hawaii Vocational-Technical Education Research Coordinating Unit was established with a direct grant from the U. S. Office of Education, Division of Comprehensive and Vocational Education Research, June 27, 1966, under the research section of 4(c) of the Vocational Education Act of 1963.

Vocational education research coordinating units have been established in 44 states for the express purpose of developing and disseminating information derived through research which can be instrumental in improving existing programs in vocational-technical education; and, developing new programs to meet changing skill requirements.

The Hawaii Vocational-Technical Education Research Coordinating Unit serves all levels of vocational-technical education in the State. Local funding support is being provided by the Community College System, University of Hawaii, which administers and houses the Unit.

The major objectives of the Hawaii RCU are:

1. To stimulate research designed to improve existing programs of vocational-technical education and to develop new programs to meet changing needs.

2. To acquire information derived through vocational-technical education research and disseminate information to those whose interests and needs are related.

3. To guide research efforts into areas of greatest need and coordinate research to contribute to progress of effective vocational-technical education programs.

4. To foster the implementation of research in vocational-technical education in the schools where the impact of vocational-technical education problems are felt.

EDUCATIONAL ACTIVITIES WITHIN BUSINESS-INDUSTRY: IMPLICATIONS FOR PUBLIC EDUCATION

David R. Lynn
University of Hawaii
Community College System
Vocational Education Research Coordinating Unit

John W. Nothom
University of Hawaii
Community College System

January 1968

Hawaii Vocational-Technical Education Research Coordinating Unit
Community College System, University of Hawaii
Honolulu, Hawaii

The Hawaii Vocational-Technical Education Research Coordinating Unit is partially supported by a contract with the Office of Education, U. S. Department of Health, Education, and Welfare. Points of view do not, however, necessarily represent official U. S. Office of Education position or policy.

ED044619

COOPERATING AGENCIES

Commission on Manpower and Full Employment
State of Hawaii

Chamber of Commerce of Hawaii

Department of Labor and Industrial Relations
State of Hawaii

TABLE OF CONTENTS

	PAGE
ACKNOWLEDGMENT	*vi*
FORWARD	*vii*
IMPLICATIONS	*viii*
SUMMARY	*xii*
SECTION I - THE PROBLEM	1
SECTION II - REVIEW OF RELATED LITERATURE	6
SECTION III - METHODOLOGY	11
SECTION IV - PRESENTATION OF FINDINGS	14
SECTION V - CONCLUSIONS	32
BIBLIOGRAPHY	36
APPENDIX A - SELECTED COMMENTS OF BUSINESS AND INDUSTRY IN RESPONSE TO QUERIES	37
APPENDIX B - FIRMS RESPONDING TO INTERVIEW PHASE I	40
APPENDIX C - COPY OF LETTER SENT TO EMPLOYERS, SURVEY QUESTIONNAIRE PHASE II	43

LIST OF TABLES

TABLE		PAGE
1	Sample Population	15
2	Summary of Response to Questions Regarding Extent of Training	16
3	Purposes for Which Training Was Conducted	17
4	Summary of Responses to Questions Regarding Types of Training Programs Being Conducted	19
5	Training Areas Schools Can Be of More Assistance to Business-Industry	20
6	Suggestions for Innovation and Change	21
7	Number of Employees Reported by Occupational Groupings	24
8	Summary of Responses to Questions Regarding the Purposes and the Nature of Training Programs Being Conducted and the Criteria for the Selection of Trainees	26
9	Summary of Responses to Questions Regarding the Purposes and the Nature of Training Programs Being Conducted and the Criteria for the Selection of Trainees	28
10	Employers' Responses Concerning Expanding Training Programs, Subsidizing Employees in Training and Development of Training Competencies	30

LIST OF TABLES
(continued)

TABLE		PAGE
11	Comparison of Data Reported by Respondents PHASE I - PHASE II	35

ACKNOWLEDGMENT

This study was made possible by the interest and willingness of business-industry to become involved in the concerns of the public schools in the development of meaningful occupational educational programs.

Top management officials made themselves available and contributed classified information for the purposes of the survey. The authors were cordially received, and ample time was provided for on-site interviews.

The Department of Labor and Industrial Relations contributed to the personal interview phase of the study by identifying firms conducting in-plant training programs and facilitating interview arrangements.

The Chamber of Commerce of Hawaii facilitated the mail questionnaire phase of the study by providing access to a "master" mailing list.

The Commission on Manpower and Full Employment expedited the study by providing advisory services and supportive funds for the mechanics of the survey.

The authors appreciate the cooperation of all organizations and individuals who assisted in making the survey possible. It is hoped that this cooperative effort to re-identify training, problems and needs will stimulate interest in the coordinated development of manpower programs by both business-industry and public education in Hawaii.

David R. Lynn
John W. Nothom

FOREWORD

Industry-business and public education in Hawaii face dynamic challenges in preparing youth and adults for personal survival and success in our labor force. The many pressures and demands in meeting competition in our changing labor tasks make it increasingly difficult to provide the necessary educational experience and training. To keep pace with our changing economy, existing educational purposes and practice require constant review and revision.

The purpose of this survey was to identify the nature and scope of training being conducted within business-industry and to examine expectations for public education. It is expected that the information gathered will be of assistance in the development of coordinated manpower programs.

IMPLICATIONS

The following implications presented in four separate sections have been drawn from the study by the authors. In order of their appearance the sections report implications regarding (a) necessary research and development activities related to occupational education; (b) changes needed in the occupational curricula and program structure of public education; (c) need for public education to provide business-industry with personnel and facilities to foster, improve and increase the effectiveness of in-plant training programs; (d) new administrative concepts regarding responsibilities of business-industry occupational education.

Implications regarding the need for research and development.

1. That research be initiated and funded in the field of occupational education and manpower development to bridge the gap between the schools and business-industry where the impact of vocational training is felt.

2. That business-industry join public education in initiating research that will provide for the improvement of existing training programs and the development of new programs to meet changing needs.

3. That intensive studies be initiated to determine the most appropriate means of providing youth and adults with the opportunity to develop occupational proficiency.

Implications for changes needed in the occupational curricula and the program structure of public education.

1. That occupational education programs in widely selected occupational areas be developed at the secondary level which will be coordinated and articulated with the post-secondary programs to provide entry into post-secondary programs at several levels. (Not excluding advance placement and early admission.)

2. That secondary occupational programs be coordinated with business-industry and the State Employment Service to provide for "work experience programs" as an integral part of the occupational career oriented student's educational experience.

3. That the exploratory and prevocational function of the secondary industrial arts program be reidentified and broadened to reflect contemporary industry; and, that units of instruction be imaginatively developed and creatively taught.

4. That business-industry personnel and facilities, where feasible, be made available to supplement specialized instruction needed but not always offered by public education.

5. That the existing agreement between the Hawaii State Board of Education and the State Department of Labor and Industrial Relations (State Employment Service) be revised to include both the secondary programs and the post-secondary programs of the community colleges and technical schools. And, that the existing cooperative working agreement be further implemented and expanded to include provisions for the placement of youth in meaningful work experience programs.

Implications regarding the need for public education to provide business-industry with training personnel and facilities.

1. That vocational educators be made available to assist business-industry training personnel in analyzing training needs, developing trainer competencies, and implementing training programs.

2. That the duties of the "vocational teacher educator," College of Education, University of Hawaii, include the responsibility for the development of in-plant teachers and other supervisory personnel in business-industry.

3. That the community colleges and technical schools establish at each campus the position of "coordinator for vocational-technical education" to be responsible for maintaining continuous contact with business-industry and the development of cooperative relationships.

Implications regarding responsibilities of business-industry pertaining to occupational education.

1. That leaders from the total spectrum of business-industry involve themselves with educational administrators in the development and improvement of vocational education in the State.

2. That business-industry and public education cooperatively develop an organizational framework within which the image of the world of work and occupational preparation can be elevated. It is essential that business-industry assist educators in translating known needs into action programs.

3. That business-industry participate directly in manpower training programs by providing assistance in student recruitment, selection, and placement by formulating recommendations and advising on

problems relating to the instructional program; and, providing assistance in keeping instructional staff current with technological change.

4. That the role and function of apprenticeship be examined in view of meeting the training needs of a broader spectrum of occupations. Skill and knowledge requirements for each step of the apprenticeship and labor grade contracts need to be coordinated with the preemployment and part-time course offerings at the community colleges and technical schools.

5. That business-industry make provision within their training structures for occupational instructors in public education to become familiar with new technologies and practices which need to be included in current curricula.

6. That programs not meeting apprenticeship requirements be established by business-industry to provide on-the-job training programs with the schools providing the supplementary related instruction.

SUMMARY

This study was concerned with the nature and scope of educational programs within business-industry based on the opinions of personnel directors, industrial relations officers, training staff and labor representatives regarding school-industry cooperation in meeting manpower needs. Over 50,000 employees, approximately 16 percent of the total labor force in the State were represented in the study.

Areas of study included (a) types and levels of training being conducted by business-industry; (b) extent of business-industry "in-plant" education programs; (c) costs of training programs; (d) opinions as to expectations for public education.

Since the objective of this pilot study was to provide data for further research or action programs, if warranted, rather than an in-depth statistical analysis, findings were reported in narrative form.

The survey consisted of two phases: (a) PHASE I, on-site personal interviews with selected firms known to be conducting in-plant training programs; (b) PHASE II, the obtaining of information from a larger sampling by mail questionnaire.

PHASE I - Personal Interviews.

A total of 23 organizations were contacted and queried in regard to objectives of the study. Interviews were unstructured, but a "guide questionnaire" was used to provide uniformity of on-site assessment. Questions in the "guide" were focused on the objectives of the study.

The sample was determined by the State Department of Labor and Industrial Relations and contacts were established with the authors on

a volunteer basis. This sample was considered to be a representative cross section of the larger employers in Hawaii but not inclusive of all types of business-industry. Smaller employers were represented by only a few organizations. This phase of the study, therefore, does not reflect training practices or needs of this group.

PHASE II - Survey by Mail Questionnaire.

The objective of Phase II was identical of that of Phase I and differed only in methodology and the sample.

Phase II attempted to obtain a broader sampling of the business-industry community by contacting firms categorized as "small employers." The Chamber of Commerce of Hawaii made available to the authors the master mailing list of the organization. This list represented a comprehensive directory of firms and organizations in the community with no indication as to whether or not training was being conducted.

Packets containing an introductory letter, questionnaire and return envelope were mailed to 1,684 individuals and organizations. Firms contacted by Phase I were not included in this sampling.

Conclusions.

The results of the two sample groups (large employer and small employer) were generally consistent with few exceptions. The small employer group reported that expansion of vocational education at the high school level as well as expansion at the post-high school level was significantly important as a means of assisting business-industry with training. The larger employer placed greater emphasis on expansion at the post-high school level and the part-time evening programs.

Based on the data presented in this study, it is apparent that manpower development must be a cooperative undertaking involving business-industry, public education and related government agencies.

Business-industry is engaged extensively in training operations in one form or another to increase the productivity of employees and the efficiency of the organizations.

Public education has a responsibility of preparing local youth for useful, satisfying and gainful employment at the termination of formal schooling. Educators need to appreciate the training problems of industry and assist in the development and implementation of supplemental educational courses to increase occupational efficiency and personal development.

There is an apparent gulf between business-industry and public education which has not been bridged in spite of expressed interest by both parties to develop cooperatively on-going programs. There is evidence that employers are assessing vocational education to determine the amounts and kinds of assistance that are available and that public educators are interested in developing the needed programs. However, it appears that technological developments occur in business-industry more rapidly than cumbersome governmental agencies are able to develop needed programs.

Additional investigation into the needs of business-industry in relation to specific preemployment occupational programs as well as strategies for business-industry people to identify themselves with public education is needed if realistic occupational programs are to be developed.

Only through such partnership will public education be in a position to offer purposeful, meaningful and effective education for the world of work. As the nation's economy adjusts to change, so must its human resources development policies.

SECTION I

THE PROBLEM

President John F. Kennedy in his 1963 Manpower Report stated: Manpower is a basic resource. It is the indispensable means of converting other resources to mankind's aid and benefit. How well we develop human skills is fundamental in deciding how much we accomplish as a nation.

Educators are aware that public vocational-technical schools provide only a fraction of the total occupational education available within any one community. Training is provided by a variety of institutions. It is estimated that the armed services have more persons in training than all colleges and universities in the nation. An extensive amount of education is now occurring within business-industry. Some of these programs are excellent examples of educational planning, and much of the best instructional equipment is to be found there. In a period of accelerating technological change, continuous employment in some occupational classifications demands continuing education. (11:6)

Statement of the problem.

The need for accurate detailed information regarding the education being provided by business-industry has become crucial to the development of state educational plans. The purpose of this study was to identify occupational education programs currently being conducted by business-industry within the State of Hawaii in order that those concerned with the improvement of vocational-technical education would have data to support planning and recommendations. It is not entirely clear why

business-industry provides educational programs. Is business-industry duplicating the efforts of public education? In what areas can public education best provide supportive functions?

A further purpose of this study was to seek specific reasons for business-industry educational activity to determine if there were significant implications for public education. Therefore, objectives of this study were: (a) to determine the nature of educational programs related to occupations currently being conducted by business-industry in Hawaii; and, (b) to determine upon what premise such programs are being conducted and the implications for public education.

Importance of the problem.

The role and function of vocational-technical education in the public schools in Hawaii are of considerable concern. The Second Legislature, 1964, State of Hawaii, requested a study entitled, Education in a Changing World of Work in a Democratic Society, which questioned many on-going practices of the public schools. The Third Legislature, 1967, moved a step further by mandating the development of a "new state master plan for vocational education." This is currently being developed by a committee representing the State Board of Education, the University Board of Regents, and the Commission on Manpower and Full Employment. It is evident that public education can no longer provide all the skills for getting a job and meet the manpower needs of business-industry. But what kind of education is most likely to land that first and second vital job? It is necessary to examine the role that business-industry is performing in education if educators are to discharge their responsibility for planning and developing coordinated, meaningful occupational programs.

It is believed that this study will contribute directly to the implementation of program change and innovation in vocational-technical education to extend and enlarge job opportunities.

Questions for which answers were sought.

In conducting the study, answers were sought for the following questions:

1. In what areas was business-industry providing occupational education?

2. Why was this education being provided?

3. How extensive was such education?

4. What were the expectations of business-industry for public education?

Statement of assumptions.

The following assumptions were made in pursuit of this study: (a) that business-industry accepts the concept of vocational-technical education in the public schools and is interested in continuous cooperation; (b) that top management of business-industry would be responsive and cooperative in providing time for personal interviews; (c) that respondents would be knowledgeable of the broad spectrum of occupational education and related manpower needs; (d) that there were common understandings regarding concepts of training, manpower needs, technological development, economic and sociological trends, and cost effectiveness of programs.

Limitations of the study.

The study was conducted in view of the following limitations: (a) the sample studied in Phase I was determined by, with minor exceptions,

the Department of Labor and Industrial Relations; (b) the sample in Phase II was determined from the master mailing list of the Chamber of Commerce of Hawaii; (c) data and information reported were limited to opinions and observations of the respondents without reference to company records.

Delimitations of the study.

The following delimitations were placed on the study: (a) only those organizations maintaining offices on the island of Oahu were included in the study; (b) the study was only concerned with the education programs of business-industry--the military organizations were not included; (c) the research was not intended to be a statistical study and findings were reported by narrative discussion; (d) there was no intention of an in-depth study. The objective here was a sampling or pilot study to provide data for further research or action, if warranted.

Definitions of terms used.

The following terms are defined to clarify their usage in the context of this study:

1. Business-industry. The term business-industry is used to identify organizations engaged in business, sales, agriculture, construction, manufacturing, transportation and service.

2. Vocational-technical education. The term is used to denote any programs or courses, wherever or to whomever offered, which are specifically intended to prepare persons for a particular occupation and/or up-grade the person within the occupation.

3. Occupational education. The term is used synonymously with vocational-technical education.

4. Training. The term training is used interchangeably with the term education. In general, it is used to refer to those aspects of education which lead to occupational employment. In business-industry the term is commonly used in reference to all educational activity; i.e., "supervisory training," "apprentice training," "training facilities," "training officer."

5. Apprenticeship. The term denotes a formalized training program, according to a written agreement, in a recognized skilled trade requiring two or more years of work experience on the job through employment and supplemented by appropriate related training experience. The related training experience is normally provided by personnel of established vocational-technical education programs.

6. Work study program. This term is used to denote an instruction and work program in which students are employed specifically within the occupations for which their courses in school are preparing them. Work study in this study is used synonymously with cooperative education and work experience. The employment serves the function of a practical laboratory for reinforcing the in-school occupational education. Students in these programs receive both pay and school credit for their work.

7. On-the-job training. This term denotes the process of developing skills and knowledge while employed and receiving direction from a supervisor.

SECTION II

REVIEW OF RELATED LITERATURE

Although there are existing studies concerning education being provided by business-industry, apparently there are few studies that have concentrated on a single community.

Clark and Sloan studied vocational-technical education in industry, merchandising and the armed services. These studies indicated that large numbers are being trained by these groups. The studies were reported by Clark and Sloan in Classrooms in Factories. (4) Currently, Swanson and Elberg are attempting to determine the effectiveness of education now occurring within business and industry in the City of Richmond, California. (10) The October, 1967, issue of VEIN, the newsletter of the Oklahoma Vocational Research Coordinating Unit, reports the recently published study, "Expectations of Oklahoma Firms Concerning Occupational Curricula for State Junior Colleges," by Theodore H. Voth. The completed report was not available; but, the abstract reported the following:

> Business sees a two-fold educational need in an age of rapid technological change: (1) the increasing need for persons with highly specialized training, and (2) the need for persons with social responsibility, cultural maturity, and capacity for change. (12)

Samuel M. Burt, Special Assistant to the Director of the United States Employment Service, recently completed an in-depth study of industry participation and involvement in vocational and technical education programs. In regard to industry-education cooperation in occupational training, he cited the following problems of coordination:

> Unfortunately, industry does not always clearly understand the problems of the educational institution, and vice versa. For instance, industry may not develop definitive manpower policies, nor feel any commitment to employ graduates of the school occupational programs, despite the fact that they may have helped establish the programs. Yet industry expects the schools to meet its needs for new employees. At the same time, the schools may be providing youth with skills for occupations rapidly becoming outmoded and disappearing. (2:6-7)

In a conference concerned with apprenticeship training, Don Irwin of the Chrysler Corporation had this to say:

> Preemployment training and vocational education have been of little value. Schools are not expected to train students for jobs, per se. Students need a greater exposure to more crafts; their ignorance is great. Also, training in math and reading needs greater emphasis. (3:178)

Norman Bowman, Staff Business Writer of the San Jose Mercury, (October 20, 1967) reported briefly on results of a recent study by the Manpower Research Council as follows:

> About half of those answering the questions said they think in-plant training is the answer to curing a skill shortage--but, they also noted such training is handicapped by lack of time, competent instructors and money. (1)

At the local level, the "Oahu Manpower Skill Survey" conducted by the Department of Labor in 1965 determined the number of trainees in formal company training programs. The study did not inquire as to reasons for such programs or implications for the public schools; nor, did the report reflect opinions of needs and trends as seen by top management.

This report was edited, summarized and recently released as "Honolulu's Manpower Outlook--Survey of Demand and Supply of 78 Occupations." The summary of the report stated: "In the fairness to the absence of school programs, it should be pointed out that some of the

occupations have traditionally been filled through on-the-job training wholly and reliance on the availability of skilled workers."

The report further stated: "In many occupations, such as those in the service field, the length of training is relatively short and mostly adapted to employer requirements. Thus, there are some occupations which seem more suitable for employer training rather than formalized school situations." (9:7)

The role of industry in training was expressed by Donald Wolfhope, Director of Training and Personnel Research, C. Brewer & Company, Ltd., during the Governor's Conference on Human Resources, February 1, 2, 1966. He said:

> However, in any organization of any size, the management of that organization is constantly faced with the problem of more skilled jobs in the company just as they are faced with the staffing of the lower skilled job. Most organizations prefer to move people up through their ranks . . . we would like to hire from within and develop our own people. (8:134)

Francis M. Hatanaka in a study to clarify some of the basic problems associated with vocational-practical arts in the State of Hawaii reported that occupational training programs of industry and the armed forces had a definite motivating effect on many students. He recommended: "To this end, there may be substantial merit in the cooperative work-study programs." (6:27)

Dorothy Moore in the Legislative Reference Bureau's Report No. 3 (1966) discussed various concepts of occupational training and expressed the following concerns as to:

> . . . what policies can the State adopt to encourage employers to provide on-the-job training; and, should employers be required to release apprentices during the day for related study?
>
> . . . the boundary between public and private responsibility for training. . .
>
> . . . public expenditure for training which could be done better on the job. (7:70, 81)

Nationally there is a growing concern for a structure to integrate "industry" and "education" into a truly comprehensive national occupational training system. Gary B. Hansen has prepared for the National Manpower Task Force a report entitled, Britain's Industrial Training Act: Its History, Development and Implications for America.

Hansen points out "the dichotomy between formal education and institutional or on-the-job training remains unresolved in Britain, as indeed it does in the United States." He is of the opinion that the concept of the Industry Training Board, as used in the British training system, is worthy of consideration in this country. He cites implications in the British system for modifying the current U. S. training practices as follows:

> . . . such an approach might provide a suitable framework for overhauling America's archaic system of vocational education and training.
>
> . . . it could be a step toward fostering a healthy training consciousness in industry.
>
> . . . substantially modify the existing responsibility between institutional vocational education and industrial training within industry.

Problems to be met in the British training system are listed as follows:

> . . . inadequate supply of training specialists and officers at all levels.
>
> . . . problems of small firms with limited or highly specialized operations. (5:9, 54, 55)

A limited review of the literature reveals evidence that public education can be of greatest assistance to business-industry by providing students with basic job entry skills and the necessary educational background that will facilitate occupational advancement and mobility. Business-industry accepts the fact that they must train the new employee who possesses adequate entry skills in the application of those skills to specific work in progress. The policy of promotion from within necessitates in-plant training especially in the specialized skill areas.

SECTION III

METHODOLOGY

To accomplish the purposes of the study, the following methodology was used: (a) limited interviewing of business-industry personnel; (b) contact with a broad spectrum of business-industry via mail questionnaire; (c) analysis and interpretation of inquiry keyed to the questionnaire; (d) review of relevant literature in the field of business-industry occupational training programs; (e) development of conclusions and implications from the study.

Establishment of the sample for Phase I - Personal Interviews.

1. The Department of Labor drawing upon classified lists of business-industry organizations reporting in-plant education programs prepared and mailed letters encouraging cooperation in the proposed study. Recipients of the letter were requested to contact the authors. A total of 60 letters were mailed out.

2. Twenty five (25) business-industry organizations responded by phone and subsequent on-site interviews were arranged.

3. To provide a more representative sample, five additional organizations not responding but known to have training programs were contacted by the authors and included in the survey.

Seven organizations requested that contact be made with factoring agencies thereby reducing the on-site interview sample to twenty three (23).

Background was developed by visiting with vocational-technical educators and with several organizations concerned with manpower development. Pre-survey contacts were made with two business-industry organizations conducting in-plant training. From these contacts the questioning required to achieve the objectives of the study was delineated. Questions were then edited into an instrument which was used as the "questionnaire." For the purposes of the study, it was determined that the interview would be unstructured placing primary emphasis on the subject's verbal report.

Content of guide questions.

Guide questions were concerned with the following general areas: (a) general data; (b) what was happening in business-industry occupational education programs; (c) why did the situation exist; (d) what were the expectations for public education; (e) apparent trends in training concepts.

Establishment of the sample for Phase II - Mail Questionnaire.

1. The Chamber of Commerce of Hawaii made available to the authors the master mailing list of the organization. Questionnaires accompanied by an introductory letter and return envelope were mailed to 1,684 individuals and organizations in the State. The questionnaire was identical to that established in Phase I of the study.

2. Recipients were requested to return the completed questionnaires to the Hawaii RCU.

The data provided by respondents were organized and summarized for reporting purposes. As the study was not of a statistical design, the

findings were reported in a narrative discussion. Conclusions and implications were developed from the data collected.

SECTION IV

PRESENTATION OF FINDINGS

PHASE I - Interviews with Large Employers.

This section is devoted to a presentation of information and data gathered as a result of personal interviews with personnel directors, industrial relations officers and training staff of twenty three (23) business-industry organizations on the island of Oahu.

Several tables present tabulated data on certain aspects of the study; however, the research did not lend itself to a statistical study and findings are primarily reported by a narrative discussion.

The sample represented a good cross section of major employers of the community which, for reporting purposes, have been grouped into the following broad, general categories:

1. Sugar and Pineapple
2. Shipping
3. Manufacturing
4. Sales and Service
5. Labor/Management Associations
6. Banking
7. Public Utilities
8. Construction

Population sample.

TABLE 1

SAMPLE POPULATION DATA

Number Solicited	Number Interviewed	Total Employees Represented	Largest Payroll	Smallest Payroll	Average Payroll
60*	23	30,348	6,000	13	1,319

Note: Figures reported as estimates

*7 firms requested interviewers to contact the factoring agency

Only five organizations reported less than 250 employees. Therefore, the study does not reflect the concerns of the smaller organizations in the community.

Data indicate that females represent 10 percent of the total number of employees reported.

Extent of training conducted in business-industry.

Personnel managers, industrial relations officers and training staff were asked to respond to questions concerned with the amount of training being conducted, which is reflected in Table 2.

Responses on Table 2 indicate that with two exceptions all firms and organizations conduct training programs. All reported plans to expand present training or initiate a training program if they do not already have one. It was common practice to staff in-plant training programs with qualified personnel.

TABLE 2

SUMMARY OF RESPONSE TO QUESTIONS
REGARDING EXTENT OF TRAINING

Groups in Population	Number in Population	Conduct Training Program	Plan Expansion	Employ Trainer
Sugar/Pineapple	5	5	5	5
Shipping	1	1	1	1
Manufacturing	3	2	3	1
Sales/Service	6	6	6	5
Labor/Management Associations	2	2	2	2
Banking	1	1	1	1
Public Utilities	3	3	3	2
Construction	2	1	2	1
Totals	23	21	23	18

Representatives of the Contractors' Association were concerned as to how they were to meet training demands now facing them. Representing over 6,000 employees in a variety of trades, association administrators must shortly provide programs to up-grade employees as well as provide on-going programs to keep the present work force current with new techniques and processes in the construction industry.

A spokesman for one of the large sugar factors indicated that the industry expected to lose 1/3 of the present work force in the next ten years by retirement. He saw a technological revolution in the sugar industry occurring within the next ten years and a need for trained manpower to meet the challenge. Old practices will disappear, and both the sugar industry and the schools must develop new programs to meet changing needs.

TABLE 3

PURPOSES FOR WHICH TRAINING WAS CONDUCTED

Groups in Population	Job Entry	Improved Performance	Technological Change	Supervisory Training
Sugar/Pineapple	2	5	4	5
Shipping	0	1	1	2
Manufacturing	1	2	1	3
Sales/Service	4	6	3	3
Labor/Management Association	2	2	2	1
Banking	1	1	1	1
Public Utilities	3	3	2	2
Construction	1	2	0	1
Totals	14	22	14	16

Reasons for providing training.

Table 3 presents a summary of responses to several questions regarding the purposes for which training was conducted.

Table 3 reveals that business-industry places the major emphasis on training programs needed to up-grade and improve on-the-job personnel in order to keep the existing work force current to change and able to cope with new situations and equipment.

Most respondents mentioned the need to develop the capabilities of the first line supervisor who was responsible for much of the on-the-job training within the industry.

There was general consensus that the primary concern of business-industry was that of development of personnel once they were "on-board." However, it was repeated frequently that business-industry was searching for "new hires" with good basic public school foundations upon which it can build.

Job entry training programs were limited to those firms in which the new worker had to perform specialized functions peculiar to the activity.

Types of training programs being conducted.

Respondents were asked to indicate the specific types of training programs being conducted. Their responses are shown in Table 4.

Respondents generally agreed that training objectives were best met by "company organized in-plant" training programs. Seventy five percent of business-industry organizations were actively engaged in formal organized training programs. This activity was supplemented, in most

cases, by generous subsidies in the form of payment of tuition to colleges and universities, books and supplies, costs of correspondence courses, and travel and per diem to institutes and workshops in California and other states.

TABLE 4

SUMMARY OF RESPONSES TO QUESTIONS REGARDING
TYPES OF TRAINING PROGRAMS BEING CONDUCTED

Number in Population	Apprenticeship State/Federal	Company Organized In-plant	Work Study Program	Subsidized Out-of-plant Courses
23	7	18	3	21

Seven apprenticeship programs were reported, but these were representative of only a limited number of total trainees involved in business-industry training programs.

The concept of work-study was of interest to many of the respondents. Three organizations reported on-going work-study programs in cooperation with public education. A number of the respondents indicated the need for business-industry to explore this avenue of training further.

An attempt was made to determine what qualifications, if any, business-industry had set as entrance requirements into training programs. Response was most varied and there was no general pattern throughout business-industry. Sixty percent used a proficiency test to screen and

determine abilities. In general, school certificates and diplomas were of little interest to employers other than as an indication of age and maturity.

Training programs, for the most part, were concerned with the development of skills related to trades and technical services. Respondents did not report training in the areas of office occupations.

Expectations for public education.

Respondents were given the opportunity to indicate services the public schools could perform or initiate in assuming responsibility for the development of manpower. Tables 5 and 6 reflect opinions in this regard.

TABLE 5

TRAINING AREAS SCHOOLS CAN BE OF MORE ASSISTANCE TO BUSINESS-INDUSTRY

Number in Population	Courses in Communication Skills	Courses Clerical Skills	Courses New Technologies	Courses Related Trade Skills
23	9	1	13	13

Table 5 reveals that business-industry is concerned with the need for courses to meet the changing technologies industry is now facing. Courses related to increasing on-the-job performance of workers in the skilled trades were considered equally important.

TABLE 6

SUGGESTIONS FOR INNOVATION AND CHANGE

Number in Population	Expand H.S. Voc. Program	Expand C.C.S. Program	Develop Work Study Program	Expand Part time Program
23	2	13	9	16

Table 6 reveals that business-industry identifies the evening and part-time programs as the area in which the public school can be of the greatest service; and, that expansion of such programs could supplement and even assume some of the training now being done by business-industry.

The community colleges and technical schools were seen as the educational level at which the schools could be of greatest help. Employees are adults and could be accommodated best in the post-high school programs.

The high school was rarely mentioned as a source of help in supplementary training. However, respondents were almost unanimous in their demands that "new hires" be adept in communication skills and oriented toward the world of work. The need for the development of better occupational counseling was frequently suggested.

Fifty percent of the respondents requested the services of the vocational teacher training staff at the University of Hawaii to assist business-industry in improving and developing in-plant training programs.

Cost of training programs and number of trainees involved.

Interviewing failed to determine the cost of training being incurred by business-industry. Respondents did not have figures and apparently such data was not readily available. Most respondents provided a "did not know" answer. Several of the large firms did, however, venture estimates which ranged from $25,000 to $100,000 for annual training costs.

The number of trainees receiving training annually was also impossible to determine. Programs varied from a few days to several years. Records were not available. A consensus of several of the respondents was that a figure representing 20 percent of the work force being trained at any one time was a good estimate.

PHASE II - Mail Survey of Small Employers.

This section is devoted to a presentation of information gathered as a result of the mail questionnaire survey of business-industry organizations on the island of Oahu.

Several tables present data tabulated for brevity and clarity of specific aspects of the study. The research did not lend itself to a statistical study and findings are primarily reported by a narrative discussion.

Occupational categories reported by responding employers were reduced to eleven principal categories for practicality in handling by combining closely related occupations. It should be noted that this arrangement is somewhat superficial as there are many overlapping areas and only the principal occupation of the business-industry firm reported was used in the occupational classification.

It was not practical from the information provided by the questionnaire to relate the occupational activity reported to the Department of Labor and Industrial Relations coding system.

However, to provide a more meaningful report and interpretation of data, the following table representing the categories has been provided to enable readers to assess the population sample represented by respondents.

TABLE 7

NUMBER OF EMPLOYEES REPORTED BY OCCUPATIONAL GROUPING

TOTAL EMPLOYEES REPORTED	20,336		
Occupational Grouping	Number Respondents (N)	Number Employees	Percent of Total Employees Reported
Sales and Service	89	3,379	16.6
Hotel and Restaurant	9	4,152	20.4
Mechanical	9	2,071	10.1
Manufacturing	20	1,966	8.7
Technical	17	1,977	9.6
Medical and Health	4	820	4.2
Clerical and Finance	55	4,031	19.8
Construction	24	1,578	7.7
Travel	6	161	.9
Printing and Publishing	5	156	.8
Other	6	245	1.2
	242	20,336	100.0%

Only those who responded to one or more items in each section area were included in the percentage calculations. These percentages are reflected in Tables 8 and 9.

Purpose and nature of training.

Respondents were asked the purpose for which in-service training was being provided. The answers are detailed in Table 8.

The most frequently reported reason for training was that of "improved performance." With minor exceptions all respondents listed this as the prime reason for training. To provide "job entry skills" was reported as the second most frequent reason for training.

Types of training programs.

Respondents overwhelmingly named "company organized and sponsored" as the principal type of training activity. Few organized formal and informal apprenticeship programs were reported. Major exception to this was the construction industry which reported apprenticeship as the major vehicle for training.

Evidence required to qualify for training programs.

An effort was made to identify the experience and educational attainment requirement, if any, for entry into training programs as established by respondents in the eleven categories. Table 8 provides a detailed summary of responses.

Responses of business-industry, reported by the eleven categories, most frequently listed a "statement of experience" as the most important entry requirement. This was followed by the need of evidence of a "school certificate" (unidentified). A review of item responses indicates a wide variety of entry requirements.

An inference can be drawn that because of the variety of activities of business-industry, there is little agreement from organization to organization as to standards for entry into training programs. The

TABLE 8

SUMMARY OF RESPONSES TO QUESTIONS REGARDING THE PURPOSES AND THE NATURE OF TRAINING PROGRAMS BEING CONDUCTED AND THE CRITERIA FOR THE SELECTION OF TRAINEES

Note: % reported is the percentage of responses only as related to the particular section.	Respondents identified by major job classifications										
Number of responses = (N)	Sales and Service	Hotel and Restaurant	Mechanical	Technical	Manufacturing	Medical and Health	Clerical and Finance	Construction	Travel	Printing and Publishing	Other
Total responses = 253	90	10	11	17	22	4	58	24	6	5	6
Average %	%	%	%	%	%	%	%	%	%	%	%
Purpose for which training is provided:											
Job entry skills	66	58	71	60	36	70	100	61	50	50	67	100
Improved performance	75	71	86	60	73	90	100	90	75	75	100	0
Changing technology	42	31	14	30	36	40	100	40	25	75	67	C
Supervisory and management	44	44	57	20	36	60	0	61	25	75	100	0
Type of training programs being conducted:											
Apprenticeship - Federal/State	22	6	20	10	9	0	0	7	79	0	50	0
Company organized and sponsored	84	94	50	100	82	80	100	92	26	100	100	100
Cooperative school-industry	21	13	0	30	0	30	100	25	11	0	25	0
Requirements for entry into training programs:											
None	29	31	33	30	15	44	50	22	30	20	30	17
School certificate	32	28	0	30	46	13	50	51	25	20	66	35
Statement of proficiency	54	58	16	60	54	38	100	43	55	80	33	17
Proficiency test	28	31	8	20	46	31	0	53	15	40	0	0

eleven categories provided responses from "0" percent to "100" percent to any one question. It is also significant to note that an average of 29 percent of business-industry respondents reported "no entry requirement."

Instructional areas in which business-industry feels public education could be of greater assistance.

When asked if the schools could provide training now being provided by business-industry, 143 of 253 firms responding (56.2%) indicated that "some" could be provided just as easily in the schools. Only 20 (8%) indicated that "all" training now being provided by the firm could be accomplished in the school.

The importance industry attached to the general areas of training that should be provided by the schools is shown in Table 9. Of the four program areas, data indicate that business-industry feels that the schools could be of greatest assistance in the development of "communication skills" for potential employees. The construction, mechanical and technical industries were exceptions to the above since they considered "courses related to skill areas" more important. "Clerical skills" and "new technologies" followed in that order with no significant preference indicated.

Expansion and development of public education programs that can best assist business-industry.

Business-industry was queried as to opinions regarding the program areas the schools could expand to serve their needs more fully. One hundred forty eight respondents identified "evening and part-time"

TABLE 9

SUMMARY OF RESPONSES TO QUESTIONS REGARDING THE PURPOSES AND THE NATURE OF TRAINING PROGRAMS BEING CONDUCTED AND THE CRITERIA FOR THE SELECTION OF TRAINEES

Note: % reported is the percentage of responses only as related to the particular section.	Respondents identified by major job classification										
Number of responses = (N)	Sales and Service	Hotel and Restaurant	Mechanical	Technical	Manufacturing	Medical and Health	Clerical and Finance	Construction	Travel	Printing and Publishing	Other
Total responses = 253	90	10	11	17	22	4	58	24	6	5	6
Average %	%	%	%	%	%	%	%	%	%	%	%
In what educational program areas do you think schools can be of more assistance to your organization:											
Courses in communication skills	67	81	77	50	40	72	75	85	28	66	100	66
Courses to improve clerical skills	38	40	22	10	7	28	75	44	9	66	60	33
Courses related to new technologies	27	28	21	60	46	17	25	23	18	18	20	17
Courses related to skill areas	40	23	21	60	87	28	0	25	90	33	60	17
How can the schools best assist business-industry training programs:											
Expanding vocational programs at the high school level	36	28	10	60	40	65	25	36	60	16	40	20
Expanding vocational-technical programs at the post-high school level	53	46	20	70	80	50	50	45	45	50	60	60
Development of work-study programs in cooperation with business-industry	34	34	80	30	20	25	0	30	20	50	60	20
Expand evening part-time programs to meet special needs at all levels	56	57	40	40	66	50	100	65	48	33	60	60

programs as a program area where the school could be of the greatest assistance. Respondents indicated priorities in this decending order:

(148) 51% favored "evening and part-time" programs

(121) 47% favored expanding vocational-technical programs at the post-high school level

(108) 33.5% favored expanding vocational-technical programs at the high school level

(86) 30.8% favored expanding work study programs

Respondents were encouraged to check one or more of the four items. It is significant to note that 38 percent indicated only <u>one choice</u>; 39 percent indicated <u>two choices</u>. An inference can be made that business-industry sees the need for program expansion in more than one area with preferences as indicated.

<u>Assistance of "vocational teacher trainer" in developing training competencies</u>.

Responses to the inquiry regarding assistance with training programs which professional educators might be able to provide business-industry indicated that such assistance would be most welcome.

One hundred four (60% of the total respondents to this question) indicated that the University's vocational teacher development programs could provide assistance to supervisors and others responsible for conducting in-service training. Table 10, Column 1 reports the responses.

<u>Subsidizing of employees to encourage further education</u>.

The survey undertook to determine the extent business-industry supplements "in-house" training programs by subsidizing and in other ways encouraging employees to take advantage of on-going, organized educational

TABLE 10

EMPLOYERS' RESPONSES CONCERNING EXPANDING TRAINING PROGRAMS, SUBSIDIZING EMPLOYEES IN TRAINING AND DEVELOPMENT OF TRAINING COMPETENCIES

	#1 Require assistance of vocational teacher trainer in developing training competencies			#2 Subsidize employees who are engaged in training courses			#3 Anticipated need to expand training programs		
	(N)YES	(N)NO	NR*	(N)YES	(N)NO	NR	(N)YES	(N)NO	NR
Sales and Service	29	25	36	49	36	5	45	31	14
Hotel and Restaurant	6	1	3	8	2	0	8	0	2
Mechanical	9	1	1	8	2	1	7	2	2
Technical	7	3	7	12	4	1	11	2	4
Manufacturing	8	6	8	10	10	2	10	6	6
Medical and Health	1	1	2	2	1	1	3	0	1
Clerical and Finance	22	23	13	44	12	2	33	22	3
Construction	15	4	5	14	9	1	13	9	2
Travel	0	3	2	4	1	0	2	2	1
Printing and Publishing	3	1	1	2	3	0	2	3	0
Other	4	0	2	4	2	0	2	4	0
	104	68	80	157	82	13	136	81	35

*NR - No response

programs being provided by colleges, institutes, universities, and correspondence courses.

Table 10, Column 2, reveals that 65 percent of the employers responding to this question subsidized further job related education for employees; 35 percent indicated that they did not.

Anticipated need to expand training programs.

Training activities of business-industry apparently will become more extensive as indicated by the data reported in Table 10, Column 3. One hundred thirty six firms (53% of the total respondents) indicated a need to increase training activities.

Training personnel and facilities costs.

One of the purposes of the survey was to evaluate the extent of training being conducted by business and industry. The questionnaire failed to determine specific numbers being trained and costs incurred.

One hundred fifty five of the 253 respondents reported 4,361 employees being serviced by in-plant training programs. Respondents listed 76 full-time trainers and 300 part-time trainers. Questions concerned with personnel and facilities, however, were only partially completed. Several answered by a question mark (?). One respondent answering in this manner represented a large hotel operation. Many others indicated "no training" but entered remarks such as the following:

> . . . it's hard to determine the number of employees receiving training
>
> . . . applicants are hired with no experience and given on-the-job training by the department to which they are assigned
>
> . . . we send employees to work shops and seminars
>
> . . . on-the-job training works best with us

SECTION V

CONCLUSIONS

The results of this survey appear to justify the following conclusions:

1. Business-industry is committed to a practice of promoting from within, and the primary concern is with in-plant training programs designed to increase the efficiency, productivity and skills of current employees.

2. Business-industry is interested in the public schools developing broad concepts and understanding as well as preemployment skills upon which training programs can be built.

3. The major implication for public education is in the provision of extended day, evening part-time and cooperative work study programs related to the needs of industry's employees.

4. Technological change in industrial materials and processes necessitates specialized training that cannot be anticipated for inclusion in the current curricula; therefore, it becomes the responsibility of business-industry either to conduct such training independently or to develop cooperative type programs with public education.

5. The local system of State sponsored apprenticeship can meet only certain manpower requirements because of the limited number of apprentice-type occupations currently in existence.

6. Business-industry is concerned with the lack of communication with vocational-technical educators.

7. There is little knowledge as to the cost-effectiveness of in-plant and other subsidized training programs of business-industry.

8. Business-industry is not concerned with in-plant training in clerical and secretarial skills; it, therefore, can be concluded that the high schools, community colleges, and other institutions are providing adequate training to meet the demands in these areas.

9. Present company organized and sponsored training programs could meet the needs of business-industry more effectively if there were more training coordination with vocational-technical programs of public schools, thereby relieving business-industry of some of the responsibility.

10. Business-industry widely subsidizes the educational development of employees by tuition refund programs, released time and related costs.

Comparative findings of PHASE I and PHASE II.

Since the sample surveyed in Phase I differed in some respects from the sample surveyed in Phase II, it was necessary to examine the data for any significant differences in findings. A comparison of the responses of Phase I (personal interview large employers) and Phase II (mail survey small employers) indicates that the conclusions drawn were consistent with only a few exceptions. (See Table 11.)

The following significant difference in conclusions can be drawn from Phase II of the survey which generally represented the smaller employer (78% less than 50 employees).

1. Courses in communication skills and the improvement of clerical skills were identified as course areas where public education could be of greatest assistance.

2. Expansion of vocational education at the high school level was reported as being significantly important as a means of assisting business-industry with training as well as expansion at the post-high school level.

3. "Statement of experience" was indicated as the most important requirement for entry into training programs. The "proficiency test" and the "school certificate" were not as significant as reported in Phase I.

4. Respondents were less optimistic regarding the need to expand training programs.

TABLE 11

COMPARISON OF DATA REPORTED BY RESPONDENTS PHASE I - PHASE II

	PHASE I Interview	PHASE II Mail Survey
	%	%
Purpose for which training is provided:		
Job entry skills	60	66
Improved performance	96	76
Changing technology	60	40
Supervisory and management	70	44
Type of training programs being conducted:		
Apprenticeship	30	22
Company organized and sponsored	78	84
Cooperative school-industry (work study)	13	21
Requirement for entry into training programs:		
None	26	29
School certificate	52	32
Statement of experience	21	54
Proficiency test	65	28
Instructional areas in which public education can be of greater assistance to business-industry:		
Course to improve communication skills	39	67
Course to improve clerical skills	4	38
Course related to new technologies	57	27
Course related to skilled trade area	57	40
Program areas public education can best assist business-industry training programs:		
Expanding vocational programs at the high school level	9	36
Expanding vocational-technical programs at the post-high school level	57	53
Development of work study programs in cooperation with business-industry	39	34
Evening part-time programs to meet special needs at all levels	70	56
Require assistance of "vocational teacher educator" to develop training competencies	52	41
Subsidize employees to acquire additional education	52	65
Anticipate expansion of in-plant training programs	87	54

BIBLIOGRAPHY

1. Bowman, Norman. "Business as Usual." San Jose Mercury, October 20, 1967.

2. Burt, Samuel M. Industry and Vocational-Technical Education. New York: McGraw-Hill Book Company, 1967.

3. Center for Studies in Vocational Technical Education. Research in Apprenticeship Education. Proceedings of a Conference September 8 and 9, 1967. University of Wisconsin, 1967.

4. Clark, Harold F. and Harold S. Sloan. Classrooms in Factories. Rutherford, N. J.: Institute of Research, Fairleigh Dickinson University, 1958.

5. Hansen, Gary B. Britain's Industrial Training Act: Its History, Development and Implications for America. Washington, D. C.: National Manpower Policy Task Force, 1967.

6. Hatanaka, Francis M. New Directions. Vocational Practical Arts Study. Bureau of Instructional Services. State of Hawaii, Department of Education, August 1966.

7. Legislative Reference Bureau, Report No. 3. Education in a Changing World of Work in a Democratic Society. University of Hawaii, 1966

8. State Commission on Manpower and Full Employment. Proceedings The Governor's Conference on Human Resources. Honolulu: February 1 and 2, 1967.

9. State of Hawaii Department of Labor and Industrial Relations. Honolulu's Manpower Outlook -- Survey of Demand and Supply of 78 Occupations. Honolulu, 1967.

10. Swanson, Chester J. "A Study of Educational Activities within Business and Industry in Richmond, California." University of California, Berkeley. (Research in process to be completed June, 1967.)

11. U. S. Department of Health, Education and Welfare. Education for a Changing World of Work. U. S. Government Printing Office, 1964.

12. Vocational Research Coordinating Unit. VEIN (Vocational Education Information Newsletter). Oklahoma State University. October, 1967.

APPENDIX A

SELECTED COMMENTS OF BUSINESS AND INDUSTRY IN RESPONSE TO QUERIES

Several comments made by respondents are appropriate for inclusion. In paraphrasing ideas and concepts, the following generalizations have been drawn:

Sugar and Pineapple Industry.

If related instruction for skilled trainees is not made available, we will need help in administering correspondence courses now being used.

Plantations should be surveyed to identify isolated training needs which could be accommodated in a central location.

We have a problem in recruiting new workers who have potential for progress to journeyman rating.

For my money, the program developed by the Maui Technical School jointly with the sugar industry 15 years ago has never been equalled--we need more of this cooperative activity.

In addition to traditional skills, training in new programs is needed to meet current demands.

Utilities.

Prospective employees are handicapped by deficiencies in numerical and verbal skills.

Off-campus evening programs are handicapped because of lack of instructional assistance.

Shipping.

We want a continuous flow of information on course offerings at the community colleges.

Current evening programs at Honolulu Community College are of great value to us.

Sales and Service.

New products and new materials mandate that we provide specialized training. Schools cannot keep training current.

I am presently working with the staff of the Honolulu Community College in developing a work-study program for qualified students in TV service.

The concept of DECA programs is good, but I find that students are not career oriented.

Labor and Management Association.

Our immediate problem is to up-grade labor grade employees to skilled classification.

We need more communication with the schools.

The industry has much to offer and we would like to work with school counselors and guidance personnel.

Apprentice courses need to be coordinated with the apprentice's on-the-job assignment.

Banking.

Training is so important to us that each employee is in a training situation and receives an average of one hour per week.

Manufacturing.

Help is needed in increasing the effectiveness of our first line supervisors.

Construction.

We appreciate this contact with you and hope that we can work together in coordinating training programs.

APPENDIX B

FIRMS RESPONDING TO INTERVIEW
PHASE I

ALEXANDER & BALDWIN, INC.

Charles Cameron
Manager, Wage & Salary Administration

C. BREWER AND COMPANY, LIMITED

Donald M. Wolfhope
Director of Training

CALIFORNIA PACKING CORPORATION (DEL MONTE)

John Hoxie
Director of Industrial Relations

CASTLE & COOKE, INC.

George Horne
Employment Services Administrator

DILLINGHAM CORPORATION

Richard Kuwata
Training & Education Manager

ELECTRICIANS UNION LOCAL 1186

Harry Chikamori
Coordinator

FIRST NATIONAL BANK OF HAWAII

Ramsay H. Sandelin
Vice President

GENERAL CONTRACTORS ASSOCIATION OF HAWAII

Elroy Chun
Assistant General Manager

Paul Banks, Representative
Construction Manager, Hawaiian Dredging & Construction

HAWAIIAN ELECTRIC COMPANY, INC.

Curtin A. Leser
Manager, Personnel Department

HAWAIIAN TELEPHONE COMPANY

Terry Plunkett
Management Training Supervisor

HAWAII WELDING COMPANY, LTD.

Ray Fuhrmann
General Manager

HOLSUM (HAWAII) BAKING INC.

James Dolim
President

Ivan Woodward
Vice President for Production

HONOLULU IRON WORKS

Richard Hughes
Vice President for Manufacturing

Francis Santos
Field Engineer

HONOLULU GAS COMPANY

Keith Ware
Personnel Manager

IBM CORPORATION

R. L. Forseth
Systems Engineering Manager

LEWERS & COOKE

Vernon Luke
Personnel Director

MATSON NAVIGATION COMPANY

Stanley Kudo
Industrial Relations Manager, Hawaii Region

OAHU SUGAR COMPANY, LTD. (Waipahu)

John T. Humme
Vice President and Manager

REFRIGERATION SERVICE & SUPPLY COMPANY, INC.

Robert Cosco

REMINGTON RAND OFFICE SYSTEMS

Richard Lum
Manager, Office Machines Division

SEARS ROEBUCK & COMPANY

Lester N. French
Personnel Manager

TIMES SUPER MARKET, LTD.

Perry Kuromoto
Personnel Manager

APPENDIX C

COPY OF LETTER SENT TO EMPLOYERS

SURVEY QUESTIONNAIRE

PHASE II

UNIVERSITY OF HAWAII

Hawaii Vocational Education Research Coordinating Unit
Community College System

November 3, 1967

Gentlemen:

We want to improve the services of the vocational-technical education programs presently being offered by the public schools of Hawaii in meeting community needs. Educators are aware that business-industry is engaged in extensive training programs. However, the nature of these programs and some of the reasons for doing so are not well known.

You are being asked to contribute to research designed to improve programs of vocational-technical education by completing the enclosed questionnaire. Specifics are not necessary--opinions and answers at hand will suffice.

From the information obtained, it is hoped that improved coordination between the school and industry can be developed in meeting manpower needs. Identification of your organization to specific information reported will not occur.

Return of the questionnaire in the enclosed envelope at your earliest convenience will be appreciated.

Sincerely yours,

Hawaii RCU

Encl.

2327 Dole Street · Honolulu, Hawaii 96822 / Cable Address: UNIHAW

HAWAII SURVEY OF OCCUPATIONAL TRAINING FACILITIES WITHIN BUSINESS AND INDUSTRY

HRCU Form
10/20/67

Hawaii Vocational Education Research Coordinating Unit
in cooperation with State Commission on Manpower and Full Employment

Community College System
2327 Dole Street, Honolulu, Hawaii 96822
Phone: 941-0966

INSTRUCTIONS:

1. You are being asked to participate in a survey of occupational training and facilities being provided by business-industry in Hawaii.
2. Please complete this form to provide information as to the type of training being provided your employees by organized class instruction, organized instruction on the job, supervisory training programs and subsidized workshops, institutes and evening classes.
3. Answer all questions. Use guesstimates if specific information is not available.

PART I GENERAL INFORMATION

1. Name of firm, institution or agency	2. Address
3. Name of person reporting	4. Title
5. Type of organization (Government, Utility, Retail, Trade, Hotel/Restaurant, Construction, etc.)	6. Number of Employees Total: Male % Female %

PART II TRAINING INFORMATION (If you have no program, please enter NONE and complete only applicable questions.)

Instructions: Indicate the general job classifications for which your organization is providing employee training.
Example: clerical, mechanical, technical, operators, service, supervisory, sales, construction, health, security, custodial.

1. Job classification

_____

2. Purpose for which training is being provided: (Check one or more)
   - 2.1 ___ Job entry skills (to 6 months)
   - 2.2 ___ Improved performance
   - 2.3 ___ Changing technology
   - 2.4 ___ Supervisory and management

3. Type of training program being conducted:
   - 3.1 ___ Apprenticeship -- Federal/State programs
   - 3.2 ___ Company organized and sponsored
   - 3.3 ___ Cooperative school-industry (work-study programs)

4. What evidence of qualification is required by your organization when selecting employees for training?
   - 4.1 ___ None
   - 4.2 ___ School certf/degree
   - 4.3 ___ Statement of experience
   - 4.4 ___ Proficiency test

   Identify any special academic proficiencies required:

   _____

5. In what educational program areas do you think schools can be of more assistance to your organization? (Check one or more)
   - ___ Communication skills: reading, writing, speaking
   - ___ Courses to improve clerical skills: typing, shorthand, etc.
   - ___ Courses related to new technologies
   - ___ Courses related to skill areas: layout, blue print reading, related math, etc.

6. Can the University's vocational teacher development program provide assistance to supervisors and others conducting training programs by workshops and courses in teaching techniques?

   ___ YES ___ NO

7. Do you subsidize and encourage individual employees in acquiring additional education?

   ___ YES ___ NO

   If YES, explain (ICS-University-Community College-Technical School)

8. Do you think that your future needs will require you to expand your present training program; or, initiate a training program if you do not already have one?

   ___ YES ___ NO

9. Has anyone from the schools' vocational-technical education programs talked with you recently to see if they could serve your needs better?

   ___ YES ___ NO

10. Could any or all of the kind of training you are providing be provided just as easily in the schools?
    - 10.1 ___ ALL
    - 10.2 ___ NONE
    - 10.3 ___ SOME

11. In your opinion, how can the schools best assist industry-business training. (Check one or more of the following possibilities)
    - 11.1 ___ Expanding vocational programs at the high school level
    - 11.2 ___ Expanding vocational-technical programs at the post-high school level (community college/technical schools)
    - 11.3 ___ Development of work-study programs in a cooperative industry-school training program
    - 11.4 ___ Evening, part-time programs to meet special needs at all levels

PART III FACILITIES-COSTS

1. What is the approximate number of employees receiving training annually?

   _____

2. Do you have room space specifically assigned for classroom for employee training?

   ___ YES ___ NO ___ OTHER

3. Do you have training aids to support the training program such as books, projectors, film, etc.?

   ___ YES ___ NO

4. What do you estimate the dollar value of your training facilities?

   (Under-5,000) (5,000-50,000) (50,000-Up)

5. Do you have personnel specifically assigned to conduct company sponsored training programs?

   ___ YES ___ NO

6. If company personnel are assigned to training, indicate the number.

   ___ Number of staff assigned full time
   ___ Number of staff assigned on part-time basis

7. What do you estimate your costs in training personnel annually?

   (Under 5,000) (5,000-25,000) (25,000-50,000) (50,000+)

ERIC Clearinghouse
JAN 04 1971
On Adult Education

USE REVERSE SIDE FOR COMMENTS